

What is claimed is:

1. An agglutination assay method for quantitatively determination of an analyte in an aqueous liquid sample using particles bearing an anti-analyte, the anti-analyte being
5 capable of specifically binding to the analyte so as to cause agglutination of the particles, comprising:

providing a mixture of said particles and a non-fluid substance which retains said particles while suppressing the diffusion of said particles;

10 contacting said mixture with a solating agent for increasing the fluidity of the non-fluid substance in said mixture;

contacting the sample with said mixture to cause the agglutination of the particles in said mixture; and

15 measuring the extent of the agglutination of the particles to determine the amount of the analyte in the sample.

2. The method according to claim 1, wherein said solation agent is supplied to said mixture together with the
20 sample.

3. The method according to claim 1, wherein said mixture constitutes a film said solation agent and the sample are applied to the film, and the agglutination caused in the membrane is detected.

4. The method according to claim 1, wherein said mixture constitute a film superimposed on a water permeable layer containing said solation agent, and wherein the sample is applied to the water permeable layer so that the sample is transferred to the film together with said solation agent.

5. The method according to claim 1, wherein said particles are latex particles.

6. The method according to claim 1, wherein said particle is a colloidal metal and the degree of the agglutination of the particles is detected from a change in color tone of the colloidal metals caused by the agglutination.

7. The method according to claim 6, wherein said particle is a colloidal gold or colloidal silver.

8. The method according to claim 1, wherein said non-fluid substance is a saccharide and said solation agent is a glucosidase.

9. The method according to claim 1, wherein said non-fluid substance is a polysaccharide and said solation agent is a glucosidase.

10. The method according to claim 9, wherein said

polysaccharide is a starch derivative.

11. The method according to claim 1, wherein said analyte is an antigen and said anti-analyte is an antibody.

12. A dry analysis element for determining an analyte in an aqueous liquid sample, which comprises a film and a water permeable layer as described in claim 4.

13. A dry analysis element for quantitatively determining an analyte in an aqueous liquid sample by measuring the extent of agglutination of particles bearing an anti-analyte, the anti-analyte being capable of specific binding to the analyte to cause the agglutination of said particles, comprising:

a non-fluid medium layer composed of a non-fluid substance which retains said particles bearing the anti-analyte therein while suppressing the diffusion of said particles; and

a water permeable layer which is superimposed on said non-fluid medium layer and contains a solation agent being capable to increasing the fluidity of the non-fluid substance;

whereby, when the sample is applied to the water permeable layer, said solation agent transfers to the non-fluid medium layer from the water-permeable layer together with the sample and increases the fluidity of said non-fluid substance to cause the agglutination of the particles in the

non-fluid medium layer.

14. The dry analysis element according to claim 13,
wherein said particles are latex particles.

5 15. The dry analysis element according to claim 13,
wherein said particle is a colloidal metal and the extent of
the agglutination is detected from a change in color tone of
the colloidal metal caused by the agglutination.

10 16. The dry analysis element according to claim 15,
wherein said colloidal metal is a colloidal gold or colloidal
silver.

17. The dry analysis element according to claim 13,
wherein said non-fluid substance is a saccharide and said
solation agent is a glucosidase.

15 18. The dry analysis element according to claim 13,
wherein said non-fluid substance is a polysaccharide and said
solation agent is a glucosidase.

19. The dry analysis element according to claim 18,
wherein said polysaccharide is a starch derivative.

20 20. The analysis element of claim 13, wherein said
water permeable layer is composed of a porous medium.